

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (previously presented) A signal processing circuit substrate assembly used for a liquid crystal display unit, comprising:

a signal processing circuit substrate;

a through-hole formed through said signal processing circuit substrate;

a mounting member positioned opposite said through-hole and electrically connected at an edge thereof to the first surface of said signal processing circuit substrate; and

a device electrically and mechanically mounted on a first surface of said mounting member, said device having a variable value and including a value adjustment portion through which said variable value is adjusted,

said value adjustment portion facing said through-hole.

2. (previously presented) The signal processing circuit substrate assembly as set forth in claim 1, wherein said mounting member is comprised of a flexible printed circuit electrically connecting the edge of the mounting

member to the first surface of said signal processing circuit substrate at a region proximate the through-hole.

3. (previously presented) The signal processing circuit substrate assembly as set forth in claim 1, wherein said mounting member is composed of flexible material electrically connecting opposite edges of the mounting member to said first surface of said signal processing circuit substrate, and said device is supported by said mounting member in a displaceable floating condition above said signal processing circuit substrate.

4. (previously presented) The signal processing circuit substrate assembly as set forth in claim 1, wherein said mounting member is fixed at one corner thereof onto said first surface of said signal processing circuit substrate and fixed together with terminals of said device at three corners thereof onto said first surface of said signal processing circuit substrate.

5. (previously presented) The signal processing circuit substrate assembly as set forth in claim 1, wherein said device is mounted on said mounting member such that said value adjustment portion does not project beyond a second surface of said signal processing circuit substrate.

6. (previously presented) The signal processing circuit substrate assembly as set forth in claim 1, wherein

said through-hole has such an area that an adjuster used for adjusting said value adjustment portion can move sufficiently to be engaged with said value adjustment portion through said through-hole.

7. (previously presented) The signal processing circuit substrate assembly as set forth in claim 6, wherein said area is equal to a sum of a first area actually occupied by said device and a second area in which said device is allowed to move.

8. (previously presented) The signal processing circuit substrate assembly as set forth in claim 1, said mounting member further comprises a plate for reinforcing said mounting member, which plate absorbs a compressive force exerted on said mounting member when said value adjustment portion is adjusted.

9. (previously presented) The signal processing circuit substrate assembly as set forth in claim 8, wherein said plate is fixed onto said mounting member at the opposite side of said device.

10. (previously presented) The signal processing circuit substrate assembly as set forth in claim 1, further comprising a plurality of reinforcing pads which fix said mounting member onto said first surface of said signal processing circuit substrate.

11. (previously presented) The signal processing circuit substrate assembly as set forth in claim 10, wherein said signal processing circuit substrate includes at least two reinforcing pads which are located on a diagonal line passing through a center of said mounting member.

12. (previously presented) The signal processing circuit substrate assembly as set forth in claim 1, wherein said mounting member is formed with means for preventing said mounting member from being wrongly fixed onto said signal processing circuit substrate.

13. (previously presented) The signal processing circuit substrate assembly as set forth in claim 12, wherein said means is comprised of three holes which are located in no rotational symmetry about a center of said mounting member.

14. (previously presented) The signal processing circuit substrate assembly as set forth in claim 12, wherein said means is comprised of three projections which are located in no rotational symmetry about a center of said mounting member.

15. (previously presented) The signal processing circuit substrate assembly as set forth in claim 12, wherein said means is comprised of three marks which are located in no rotational symmetry about a center of said mounting member.

16. (previously presented) The signal processing circuit substrate assembly as set forth in claim 1, wherein said mounting member is fixed onto said first surface of said signal processing circuit substrate by any one or more of soldering, application of an adhesive, screwing and welding.

17. (previously presented) The signal processing circuit substrate assembly as set forth in claim 1, wherein said device is a resistor.

18. (previously presented) The signal processing circuit substrate assembly as set forth in claim 1, wherein said device is a capacitor.

19. (previously presented) The signal processing circuit substrate assembly as set forth in claim 1, wherein said device is a laser trimming resistor.

20. (currently amended) A signal processing circuit substrate assembly used for a liquid crystal display unit, comprising:

a signal processing circuit substrate;

a through-hole formed through said signal processing circuit substrate;

a device being mounted on a first surface of said signal processing circuit substrate, said device having a variable value and including a value adjustment portion through which said variable value is adjusted; and

said signal processing circuit substrate including a flexible arch-shaped member having a height relative to said first surface of said signal processing circuit substrate,

said device being electrically and mechanically fixed onto a lower surface of said member in a displaceable floating condition above said signal processing circuit substrate such that said value adjustment portion is in alignment with said through-hole so as to allow said value adjustment portion to be adjusted through said through-hole,

said member being fixed at opposite edges onto said first surface of said signal processing circuit substrate.

21. (previously presented) The signal processing circuit substrate assembly as set forth in claim 20, wherein said member is comprised of a flexible printed circuit.

22. (previously presented) The signal processing circuit substrate assembly as set forth in claim 20, wherein said member is fixed at one corner thereof onto said first surface of said signal processing circuit substrate and fixed together with terminals of said device at three corners thereof onto said first surface of said signal processing circuit substrate.

23. (previously presented) The signal processing circuit substrate assembly as set forth in claim 20, wherein said device is mounted on said member such that said value

adjustment portion does not project beyond a second surface of said signal processing circuit substrate.

24. (previously presented) The signal processing circuit substrate assembly as set forth in claim 20, wherein said through-hole has such an area that an adjuster used for adjusting said value adjustment portion can move sufficiently to be engaged with said value adjustment portion through said through-hole.

25. (previously presented) The signal processing circuit substrate assembly as set forth in claim 24, wherein said area is equal to a sum of a first area actually occupied by said device and a second area in which said device is allowed to move.

26. (previously presented) The signal processing circuit substrate assembly as set forth in claim 20, wherein said member further comprises a plate for reinforcing said member, which plate absorbs a compressive force exerted on said member when said value adjustment portion is adjusted.

27. (previously presented) The signal processing circuit substrate assembly as set forth in claim 26, wherein said plate is fixed onto said member at the opposite side of said device.

28. (previously presented) The signal processing circuit substrate assembly as set forth in claim 20, further comprising a plurality of reinforcing pads which fix said member onto said first surface of said signal processing circuit substrate.

29. (previously presented) The signal processing circuit substrate assembly as set forth in claim 28, wherein said signal processing circuit substrate includes at least two reinforcing pads which are located on a diagonal line passing through a center of said member.

30. (previously presented) The signal processing circuit substrate assembly as set forth in claim 28, wherein said reinforcing pads are located adjacent to a bending of said member.

31. (previously presented) The signal processing circuit substrate assembly as set forth in claim 28, wherein said signal processing circuit substrate includes four reinforcing pads located in a rotational symmetry about a center of said member and adjacent to a bending of said member.

32. (previously presented) The signal processing circuit substrate assembly as set forth in claim 20, wherein said member is formed with means for preventing said member



from being wrongly fixed onto said signal processing circuit substrate.

33. (previously presented) The signal processing circuit substrate assembly as set forth in claim 32, wherein said means is comprised of three holes which are located in no rotational symmetry about a center of said member.

34. (previously presented) The signal processing circuit substrate assembly as set forth in claim 32, wherein said means is comprised of three projections which are located in no rotational symmetry about a center of said member.

35. (previously presented) The signal processing circuit substrate assembly as set forth in claim 32, wherein said means is comprised of three marks which are located in no rotational symmetry about a center of said member.

36. (previously presented) The signal processing circuit substrate assembly as set forth in claim 20, wherein said member is fixed onto said first surface of said signal processing circuit substrate by any one or more of soldering, application of an adhesive, screwing and welding.

37. (previously presented) The signal processing circuit substrate assembly as set forth in claim 20, wherein said device is a resistor.

38. (previously presented) The signal processing circuit substrate assembly as set forth in claim 20, wherein said device is a capacitor.

39. (previously presented) The signal processing circuit substrate assembly as set forth in claim 20, wherein said device is a laser trimming resistor.

40. (currently amended) A method of fabricating a signal processing circuit substrate assembly used for a liquid crystal display unit, a device being mounted on a first surface of said signal processing circuit substrate, said device having a variable value and including an a value adjustment portion through which said variable value is adjusted,

said method comprising the sequential steps of:

(a) mounting said device onto an upper surface of a flexible member such that said value adjustment portion upwardly faces;

(b) bending said flexible member at first lines thereof towards a lower surface of said flexible member;

(c) bending said flexible member at second lines towards said upper surface, said second lines being located between said device and said first lines; and

(d) fixing said flexible member at its opposite ends onto said first surface of said signal processing circuit

substrate such that said value adjustment portion is exposed through a through-hole formed through said signal processing circuit substrate, wherein,

the method steps produce a signal processing circuit substrate for a liquid crystal display unit with the variable value device mounted on the first surface of said signal processing circuit substrate.

41. (original) The method as set forth in claim 40, further comprising the step of (e) fixing a reinforcing plate onto a lower surface of said flexible member, said step (e) being carried out before said step (d).

42. (previously presented) The method as set forth in claim 40, wherein said flexible member is fixed at one corner thereof onto said first surface of said signal processing circuit substrate assembly and fixed together with terminals of said device at three corners thereof onto said first surface of said signal processing circuit substrate in said step (d).

43. (previously presented) The method as set forth in claim 40, wherein said flexible member is fixed onto said first surface of said signal processing circuit substrate assembly such that said value adjustment portion does not project beyond a second surface of said signal processing circuit substrate.

44. (previously presented) The method as set forth in claim 40, further comprising the step of (f) fixing said flexible member onto said first surface of said signal processing circuit substrate assembly with a plurality of reinforcing pads.

45. (original) The method as set forth in claim 44, wherein at least two reinforcing pads are located on a diagonal line passing through a center of said member, in said step (f).

46. (original) The method as set forth in claim 44, wherein four reinforcing pads are located in a rotational symmetry about a center of said member and adjacent to a bending of said flexible member, in said step (f).

47. (currently amended) A method of fabricating a signal processing circuit substrate assembly used for a liquid crystal display unit, a device being mounted on a first surface of said signal processing circuit substrate, said device having a variable value and including a value adjustment portion through which said variable value is adjusted,

said method comprising the sequential steps of:

(a) patterning a flexible printed circuit sheet into patterns which will make flexible printed circuits;

(b) covering said flexible printed circuit sheet with an electrical insulator;

(c) mounting said device on a second surface of said flexible printed circuit sheet;

(d) cutting said flexible printed circuit sheet into flexible printed circuits;

(e) downwardly bending said flexible printed circuit sheet at first lines across said device;

(f) upwardly bending said flexible printed circuit sheet at second lines across said device, said second lines being located between said device and said first lines; and

(g) fixing said flexible printed circuit sheet onto said first surface of said signal processing circuit substrate such that said value adjustment portion of said device is in alignment with a through-hole formed throughout said signal processing circuit substrate.

48. (previously presented) The method as set forth in claim 47, further comprising the step of (h) adhering a reinforcing plate on a first surface of said flexible printed circuit sheet across a width of said flexible printed circuit sheet, said step (h) being carried out prior to said step (d).

49. (original) The method as set forth in claim 47, further comprising the step of (i) forming marks located in no

rotational symmetry about a center of said printed circuit sheet.

50. (original) The method as set forth in claim 49, wherein said marks are comprised of holes, and said step (i) is carried out concurrently with said step (d).

51. (previously presented) The method as set forth in claim 47, wherein said flexible printed circuit is fixed onto said first surface of said signal processing circuit substrate assembly such that said value adjustment portion does not project beyond a second surface of said signal processing circuit substrate.

52. (previously presented) The method as set forth in claim 47, further comprising the step of fixing said flexible printed circuit onto said first surface of said signal processing circuit substrate assembly with a plurality of reinforcing pads.

53. (original) The method as set forth in claim 52, wherein at least two reinforcing pads are located on a diagonal line passing through a center of said flexible printed circuit.

54. (original) The method as set forth in claim 47, wherein four reinforcing pads are located in a rotational symmetry about a center of said flexible printed circuit and

adjacent to said second lines of said flexible printed circuit.